# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the matter of:	)
	)
Technical Advisory Committee (TAC)	) ET Docket No. 13-101
White Paper and Recommendations	)
for Improving Receiver Performance	)

To the Commission:

### REPLY COMMENTS IN THE FORM OF QUESTIONS FOR OTHERS

COMES NOW the undersigned, JAMES EDWIN WHEDBEE, who pursuant to Sections 1.415 and 1.419 of the Commission's rules and regulations [47 C.F.R. §§1.415, 1.419] respectfully offers the following reply comments in the form of questions for both supporters and opponents of the concepts embodied within the T.A.C. White Paper.

### **QUESTIONS FOR SUPPORTERS**

- 1. By way of example only, let's say the FCC sets a harm-claim threshold value of "X" for radio stations in the radiolocation and radio navigation services at 24-24.25 GHz. Later, the FCC reallocates this spectrum for point-to-point microwave services (hypothetically). What should happen to the "X" harm-claim threshold? Who should change it, if it is to be changed?
- 2. Using the same example above in paragraph 1, amateur radio stations in the 24-24.25 GHz "K" band are entitled to which harm-claim threshold level or a harm-claim threshold unique to the amateur radio service? Are these harm-claim thresholds subject to the same internationally recognized allocation priorities as have been applied to transmitters (i.e., if the amateur service is secondary at 24-24.25 GHz, how would that secondary status play into interference complaints which meet the harm-claim threshold)?

3. Again, using the same example above in paragraphs 1 and 2, what is the effect of having differing harm-claim thresholds for differing services using the same spectrum band upon the overall usefulness and propagation of signals on that band? Why?

## QUESTIONS FOR OPPONENTS

- 4. If the T.A.C. White Paper cannot be adopted, for whatever reason, what measures should be taken to immediately improve receiver quality?
- 5. What measures should be taken to reinforce the well-established principle that Part 15 devices are entitled to no protection from interference and must tolerate interference? How will the telecommunications community force the Federal Communications Commission to promptly and forthwith abide by its Section 302(f) statutory duty to 'prevent interference' [47 U.S.C. § 302(f)]? The Notice inviting comment on the T.A.C. White Paper suggests a CALEA-styled petition process (presumably with the > \$6,000.00 fee to file it which likely will exclude non-corporate filers) to seek Commission enforcement action against interference. Since there is a statutory duty in the Commission to 'prevent interference,' would it not be less costly to file a Petition for Extraordinary Relief in the Nature of Mandamus/Prohibition in the U.S. Court of Appeals for the D.C. Circuit to force the Commission to live up to that duty?
- 6. What are the obligations of differing and often disparate radio services to cooperate on the subject of interference when, in fact, they are competing services? Is this inherent conflict of interest, such as what occurred in the GPS vs. LightSquared situation not best resolved by reliance upon ITU Radio Rules and Regulations, using particularly the "Exclusive," "Priority," "Secondary," "Tertiary,"

and "permitted" allocation statuses?

#### QUESTIONS IN GENERAL

- 7. On the matter of HF allocations, because of the global propagation characteristics of HF, it is both foreseeable and like that some, if not eventually all, users of the HF spectrum will begin transmitting with a digital footprint. It might not be "broadband," as we know it in the UHF spectrum, but it'll likely have to be wider than a SSB signal (> 2.8 kHz) to be adequate to be commercially viable and/or competitive. It is this notion of HF "mediumband" (not broadband but not narrowband) which I suggest should be tested between 29.69-27.41 MHz. How will a harm-claim threshold established for digital HF reception impact existing analog HF receivers?
- 8. In the example in paragraph 7, if the USA adopts harm-claim thresholds, what will happen to complaints of interference from international receivers against U.S. communications? Do we get international agreement on harm-claim thresholds before implementing those domestically?
- 9. A three-element yagi-uda style antenna at 2.4 GHz is tiny and very manageable for even the least-trained consumer. If they can 'point and click' with their camera, they can 'point-and-orient' with a yagi antenna attached to their broadband wi-fi equipment. Given the inherent ability of these antennas to reject unwanted signals, to filter out interference with different polarizations, and to maximize receipt of the desired signal, which objectives and goals of the T.A.C. White Paper can be immediately met by requiring better antennas in consumer equipment?

WHEREFORE, the foregoing considered, I again reiterate to the Commission my belief that many of the benefits of receiver-antenna improvements match the intent of the T.A.C. White Paper, and

my further belief that the T.A.C. White Paper still requires much greater discussion, study, and international coordination.

July 27, 2013

Respectfully submitted,

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